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ARISSat-1/KEDR Test Transmissions Planned From ISS July 30-31

AMSAT News Service Bulletin 210.01
>From AMSAT HQ SILVER SPRING, MD.
July 29, 2011
To All RADIO AMATEURS
BID: $ANS-210.01

AMSAT NEWS SERVICE SPECIAL BULLETIN
ANS-210
In this Special Bulletin:

* ARISSat-1/KEDR Test Transmissions Planned From ISS July 30-31

Test transmissions from ARISSat-1/KEDR are scheduled to begin at 19:15 UTC on July 30 and then continue until 1430 UTC on July 31.

The satellite will be connected to an external antenna mounted on the ISS during testing. During the test ARISSat-1/KEDR will be in LOW power mode, this means that it will transmit about 40 seconds and then shut down for 2 minutes and then transmit for again for 40 seconds.

During the ISS test there will not be an antenna connected to the ARISSat-1/KEDR UHF port. The 435 MHz - 145 MHz Linear Transponder will not be active during the test period. This transponder will be active once ARISSat-1/KEDR is deployed.

FM VOICE DOWNLINK 145.950 MHZ

To listen for ARISSat-1/KEDR signals, FM receivers should be tuned to 145.950 MHz. Even though the satellite will only have an output of 250 mW on 2 meters, a standard FM handy talkie equipped with a quarter-wave whip antenna should be able to receive the voice ID, voice telemetry and greeting messages as the craft passes overhead.

Those planning to monitor voice broadcasts from ARISSat-1/KEDR during the July 30 - 31 test are requested to make note of the telemetry battery voltage values and UTC time, and then submit their records by e-mail to: julytest(a)arissat1.org.

FM SSTV DOWNLINK 145.950 MHZ

SSTV transmissions are included in the cycling FM downlink with station identification RS01S, voice messages, and spoken telemetry.

SSTV transmissions may also be demodulated and viewed using a free downloadable program such as MMSSTV that is available at:
http://mmhamsoft.amateur-radio.ca/pages/mmsstv.php.
For Mac users, Multiscan2 is available at:
http://web.me.com/kd6cji/MacSSTV/MultiScan.html.

If you successfully receive the SSTV transmissions, you can upload the SSTV picture that you received to:
http://www.amsat.org/amsat/ariss/SSTV

SSB BPSK-1000 DIGITAL TELEMETRY 145.920 MHZ

Given the low duty cycle of the spacecraft, those planning to
receive and decode the digital telemetry during this test are
encouraged to record the entire signal band using the FunCube
dongle or SDR-IQ receivers.

Software for demodulating the BPSK-1000 telemetry is available
at http://www.arissattlm.org;
the software Quick Start Guide is available on the link on the
http://www.amsat.org front page.

ARISSatTLM TELEMETRY ON-LINE

AMSAT needs your telemetry from ARISSat-1/KEDR both during the
test and after deployment from the International Space Station.

Since there are no "Whole Orbit Data" storage mechanisms onboard
ARISSat-1/KEDR, your submissions are the only way for AMSAT to
collect the spacecraft telemetry and KURSK experiment results.

If you are running ARISSatTLM and receiving the signal "live" from
ARISSat-1/KEDR, then please enable the telemetry forwarding option.
In the PC version of ARISSatTLM you can do this by selecting "Tools"
then "Options". In the "Options" window, replace "NOCALL" with your
amateur radio callsign and put a check in the box next to "Forward
telemetry over the Internet". The destination will already be filled
in with "telemetry.arissattlm.org".

If you successfully receive the telemetry from a recording (not live),
please forward your telemetry CSV file and KURSK telemetry files by
e-mail to telemetry (AT) arissattlm.org. These can be found inside
the ARISSatTLM folder on your Windows desktop in the Kursk and Tele-
metry folders.

And, if you just can't get enough ARISSat-1/KEDR telemetry, remember
that you can see the latest telemetry LIVE on your computer or cell
phone at: http://www.arissattlm.org/mobile

This "mobile" page is powered by the submissions from the ARISSatTLM
users who forward their telemetry over the Internet.

KD5QGR OSCAR STATUS PAGE

Thanks to David Carr, KD5QGR, ARISSat-1/KEDR has just been added to
list of satellites at the popular "Live OSCAR Satellite Status Page"
at: http://oscar.dcarr.org/ Although the transponder will not be
active this weekend, if you hear the downlink during the test (or if
you don't hear the downlink) please submit a report.

More information on the transmission schedule and overall mission
of ARISSat-1/KEDR can be found at:

ARISSat-1/KEDR Web site: http://www.arissat1.org
AMSAT Web site: http://www.amsat.org
ARISS Web site: http://www.ariss.org
ARISS Facebook Page: Amateur Radio on the ISS (ARISS)
ARISS Twitter site: @ARISS_status

The Radio Amateur Satellite Corporation (AMSAT) is a non-profit,
volunteer organization which designs, builds and operates experi-
mental amateur radio satellites and promotes space education. We
work in partnership with government, industry, educational insti-
tutions and fellow amateur radio societies. We encourage technical
and scientific innovation, and promote the training and development

of skilled satellite and ground system designers and operators. Our vision is to deploy satellite systems with the goal of providing wide area and continuous coverage for amateur radio operators world-wide. AMSAT is also an active participant in human space missions and supports satellites developed in cooperation with the educational community and other amateur satellite groups.

Amateur Radio on the International Space Station (ARISS) is a volun-teer program which inspires students, worldwide, to pursue careers in science, technology, engineering and math through amateur radio communications opportunities with the International Space Station on-orbit crew. Students learn about life on board the ISS and explore Earth from space through science and math activities. ARISS provides opportunities for the school community (students, teachers, families and local residents) to become more aware of the substantial benefits of human space flight and the exploration and discovery that occur on space flight journeys along with learning about technology and amateur radio.

[ANS thanks the ARISSat-1/KEDR Team for the above information]